WTP-9A66 Series

User's Manual

P/N: 205G00WTP9A660, Version V1.2

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Acknowledgments

Greeting & Setup

Thank you for purchasing the WTP-9A66 Panel PC. We wish that this unit will be durable and reliable in providing your needs. Please follow the instructions below to ensure the unit continues to have high performance

Unpacking

After opening the carton, there will be a unit with an accessory box. Examine the contents to see if there are damages to the unit and if all accessories are present.

Setting up

Please read this manual carefully and remember to keep this manual for future reference.

Safety Instructions & Cleaning

The unit has undergone various tests in order to comply with safety standards. Inappropriate use may be dangerous. Please remember to follow the instructions below to insure your safety during the installation and operating process.

Transporting & Placement of unit

1. When moving the unit on a cart; be very cautious. Quick stops, excessive forces and uneven surfaces may cause the cart to overturn thus risking the unit to fall to the ground.
2. If the Monitor display unit does fall to the ground, immediately turn the power off and disconnect cords. Then contact a service technician for repairs. Continual use of the unit may result cause a fire or electric shock. Also, do not repair the unit on your own.
3. Having two or more people transporting the display unit is recommended. In addition, when installing the open frame by suspending it also requires two or more people.
4. Before suspending the unit, make sure the material used for suspension is sturdy and stable. If not properly suspended, the display unit may fall and cause serious injury to people standing nearby as well as to the unit itself.
5. If you wish to mount the display unit, remember to use only the mounting hardware recommended by the manufacturer.

Electrical and Power Source Related

1. This Monitor display unit must operate on a power source as shown on the specification label. If you are not sure what type of power supply used in the area, consult your dealer or local power supplier.
2. The power cords must not be damaged. Applied pressure, added heat, and tugging may damage the power cord.
3. The power cord must be routed properly when setup takes place. We advise that this aspect measure is to prevent people from stepping on the cords or while the unit is suspended to prevent flying objects from getting

tangled with the unit.

4. Do not overload the AC outlets or extension cords. Electrical shocks or fires may occur from overloading.
5. Do not touch the power source during a thunderstorm.
6. If your hands are wet, do not touch the plug.
7. Use your thumb and index finger, grip firmly on the power cord to disconnect from the electrical socket. By pulling the power cord, may result in damaging it.
8. If the unit is not going to be in use for an extended period of time, remember to disconnect the unit.
9. Connect the unit to a power source with the same numerical value as spec. label shown. Please use only the power cord provided by the dealer to ensure safety and EMC compliance.

Various Factors of Environment

1. Do not insert objects into the openings.
2. Do not have liquids seep into the internal areas of the Monitor display unit.
3. Having liquids seep in or inserting objects into the unit may result in electric shocks from taking and/or short circuiting the internal parts.
4. Do not place the Monitor display unit in the presence of high moisture areas.
5. Do not install the Monitor display unit in a wet environment.
6. Do not place near unit near heat generating sources.
7. Do not place the unit in a location where it will come in contact with fumes or steam.
8. Remember to keep the Monitor display unit away from the presence of dust.
9. If water has flow in or seep in, immediately disconnect the open frame unit. Then contact a service technician for repairs.

Ventilation Spacing

1. Do not cover or block the openings on the top and back sides of the display unit. Inadequate ventilation may cause overheating thus reducing the lifespan of the unit.
2. Unless proper ventilation is present, do not place unit in an enclosed area; such as a built-in shelf. Keep a minimum distance of 10 cm between the display unit and wall.

Cleaning the unit

1. Remember to turn off the power source and to unplug the cord from the outlet before cleaning the unit.
2. Carefully dismount the unit or bring the unit down from suspension to clean.
3. Use only a dry soft cloth or clean room wiper when cleaning the LCD panel or touch screen surface. Use a soft cloth moistened with mild detergent to clean the display housing.
4. Remember to avoid having liquids seep into the internal components.

Servicing, Repairing, Maintenance & Safety Checks

1. If the unit is not functioning properly, observe the performance level of the display closely to determine what type of servicing is needed.
2. Do not attempt to repair the Monitor display unit on your own. Disassembling the cover exposes users' to high voltages and other dangerous conditions. Notify and request a qualified service technician for servicing the unit.
3. If any of the following situations occur turn the power source off and unplug the unit. Then contact a qualified service technician

i. A liquid was spilled on the unit or objects have fallen into the unit.
ii. The unit is soaked with liquids.
iii. The unit is dropped or damaged.
iv. If smoke or strange odor is flowing out of the open frame unit.
v. If the power cord or plug is damaged.
vi. When the functions of the unit are dysfunctional.

4. When part replacement is needed. Make sure service technician uses replacement parts specified by the manufacturer, or those with the same characteristics and performance as the original parts. If unauthorized parts are used it may result in starting a fire, electrical shock and/or other dangers.

Battery Installation

Follow below instructions and notice the caution for replacing and disposing of the RTC Lithium battery CR2032 for safety consideration.

CAUTION:

There is danger of explosion, if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instruction.

The specification is subject to change without notice.

Version Change History

Date	Version	Description	Remark
2014/12/29	V1.0	First release	Ivy
2015/02/04	V1.1	BIOS PXE limitation	Ivy
2015/07/15	V1.2	Remove reset button information/add 9A66-22 data	Ivy

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How to Use This Manual

This manual is written for the system integrator, PC technician and knowledgeable PC end user. It describes how to configure your WTP-9A66 Panel PC to meet various operating requirements. The user's manual is divided into three chapters, with each chapter addressing a basic concept and operation of the server board.

Chapter 1: System Overview - presents what you have inside the box and gives you an overview of the product specifications and basic system architecture for the WTP-9A66 Panel PC.

Chapter 2: System Installation - describes how to set up the system.

Chapter 3: BIOS Setup Information - specifies the meaning of each setup parameter, how to get advanced BIOS performance and update to a new BIOS. Additionally, the POST checkpoint list will give you a guide for troubleshooting.

The contents of this manual are subject to change without prior notice. These changes will be incorporated in new editions of this manual.

Touch Chemical Resistance

Chemical Resistance

The active area of the touchscreen is resistant to the following chemicals when exposed for a period of one hour at a temperature of 70℉ (21℃) :

- **Industrial Chemicals:** Acetone, Methylene chloride, Methyl ethyl ketone, Isopropyl alcohol, Hexane, Turpentine, Mineral spirits, Unleaded Gasoline, Diesel Fuel, Motor Oil, Transmission Fluid, Antifreeze.
- **Food Service Chemicals:** Ammonia based glass cleaner, Laundry Detergents, Cleaners (Fantastic, Formula 409, Joy, etc.), Vinegar, Coffee, Tea, Grease, Cooking Oil, Salt.

System Overview

WTP-9A66- 15

System

CPU *FCBGA1023 3rd Generation Intel® Core i7/i5/i3/Celeron® processor (17W max.)*

Chipset *HM65*

Graphic *Intel® integrated HD Graphics 4000*

Audio *None*

LAN *Marvell 88E8071 Giga LAN x 2*

Memory *Two 1066/1333 MHz DDR3 SODIMM socket support dual Channel, non-ECC, up to 16GB*

I/O *EC*

SATA *SATA 3, 600 MB/s transfer rate x 2, 2nd SATA connector for SATA DOM propose.*

Serial port *RS232 x 5*

USB *External USB 2.0 x 4 (Type A)*

Internal USB 2.0 x 5

WDT *Generates system reset; 256 segments, 0, 1, 2…255 sec/min.*

BIOS

Brand: AMI

Flash ROM size: 32MB

Support RTC wakeup /Wake on LAN /Power on after power failure/PnP/AC PI/RTC

PS: com port have to be disabled if PXE enable. It is a limitation

Display

Brand	***Tianma***
Model	*TM150TDS50*
Resolution (pixel)	*1024x768 XGA*
Active Area (mm)	*304.128 (W) x 228.096 (V)*
Outline Dimensions (mm)	*326.5 (H) ×253.5 (V) ×11.8*
Pixel Pitch (mm)	*0.297*
Mode	*TN*
Number of Colors	*16.7M*
View Angle (H/V)	*160/160*
Brightness (cd/m2)	*400*
Contrast Ratio	*600:1*

Response Time (ms) (at 25°C)	*8*
Backlight	*LED*
Weight (g)	*1000*
life time<Hrs>	*50000*

Touch Screen

	ELO
Model name	*A5-FZT-15*
Type	*5 wire RES*
Glove	*Any type glove*
Stylus	*No Limitation, can use any stylus*
Interface	*USB*
Light Transmission	*80±5%*
Hardness	*4H*
Glass thickness	*2.4mm*
Linearity	*X≦1.5%, Y≦1.5%*
Active area	*308.11x232.09mm*
Resolution	*4096x4096*
Lifetime	*35 million activations*

Storage

2.5" SATA drive bay x 1

Expansion slots

Mini-PCIe x2

External water/dust resistant I/O (rear side)

USB 1 x M12 8pin for USB 1/2
1 x M12 8pin for USB 3/4
COM 1 x M12 8pin for COM 1/RS-232/422/485 (Default RS-232)
1 x M12 8pin for COM 2/RS-232
RS-232: TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND

LAN 1 x M12 8pin for LAN 1
Power 1 x M12 5pin DC power connector

Power

Power DC-In connector x 1
Power Input DC7V~32V

Power Adapter *AC 90 ~ 264V / 47 ~ 63 Hz / DC output 12V, IP67 Power ON/Off buttons at rear side*

Power consumption *67.5w(full loading) 2.3w (S3)*

Mechanical & Environmental

Material construction *SUS304 stainless steel enclosure, chassis type*

Fanless cooling

Water and dust protection *IP66 / NEMA4X*

Operation Temperature *0~40℃ (IEC60068-2-2, HDD, air flow cooling)*

Storage Temperature *-20~60℃*

Operation Relative Humidity *10%~90%, non-condensing*

Storage Relative Humidity *10%~90%, non-condensing*

Dimensions *395x309.5x58*

Net Weight *12.4kg*

Gross Weight *8.4kg*

Mounting *VESA (100x100 mmxmm), side mount (M6*2)*

Supported OS

Win 7, Win 7 Pro, Win8.1

Options

1. *Wireless or WIFI and BT kit (2 ant)*
2. *Waterproof COM cable, cable length is 2 meters*
3. *Waterproof USB cable, cable length is 2 meters*
4. *Waterproof LAN cable, cable length is 2 meters*
5. *wall mount / table mount bracket (option)*
6. *SSD*
7. *Intel Core i7-3517U (option) turbo mode disable*
8. *2 external LAN*

Customization (by DRF)

1. *sunlight readable optical bonding*
2. *anti UV and 7H coating*
3. *full flat PCT touch screen IP69K*
4. *1000 nit high brightness LCD*
5. *LCD Auto dimming*
6. *LCD Super dimming (low brightness)*

Packing list

7. *WTP-9A66-15*
8. *DVD-Title for driver and manual*

9. Power adapter

10. Power cord

Regulatory

FCC, CE (EMC), VCCI class B

Shock/Vibration/Drop

	Shock	Vibration	Drop
General	Operating: 20g, 11ms, Terminal Saw tooth pluse Non-operating: (W/T PACKING) 40g, 11ms, Terminal Sawtooth pluse HDD+Damper	Operating: 5 ~ 500Hz , Acceleration：1.0G Non-operating: (W/T PACKING) 5~500Hz/2.0g HDD+Damper Operating: 5 ~ 500Hz , Acceleration：3.0G Non-operating: (W/T PACKING) 5~500Hz/5.0g SSD+Damper	3 Feet height free drop still survive, (test surface: concrete, with packing) 6 surfaces

Configurations:

WTP-9ª66-15, Core i5-3317U CPU, 2G RAM, 320G HDD, 4 USB, 2 COM, 1 LAN

WTP-9A66-19

System

CPU FCBGA1023 3rd Generation Intel® Core i7/i5/i3/Celeron® processor (17W max.)

Chipset HM65

Graphic Intel® integrated HD Graphics 4000

Audio None

LAN Marvell 88E8071 Giga LAN x 2

Memory Two 1066/1333 MHz DDR3 SODIMM socket support dual Channel, non-ECC, up to 8GB

I/O EC

SATA SATA 3, 600 MB/s transfer rate x 2, 2nd SATA connector for SATA DOM propose.

Serial port RS232,422,485 x 1 /RS232 x 5

USB *External* *USB 2.0 x 4 (Type A)*

Internal *USB 2.0x 5*

WDT *Generates system reset; 256 segments, 0, 1, 2…255 sec/min.*

BIOS

Brand: AMI

Flash ROM size: 32MB

Support RTC wakeup /Wake on LAN /Power on after power failure/PnP/ACPI/RTC

PS: com port have to be disabled if PXE enable. It is a limitation

Display

Brand	***AUO***
Model	***G190EG01 V1***
Resolution (pixel)	*SXGA 1280(x3) x 1024*
Active Area (mm)	*376.32 (H) x 301.06(V)*
Number of Colors	*16.7M*
View Angle (H/V)	*170 / 160*
Brightness (cd/m2)	*350*
Contrast Ratio	*1000:1*
Response Time (ms) (at 25°C)	*5*
Backlight	*LED*
Weight (g)	*1670*
life time<Hrs>	*50000*

Touch Screen

	ELO
Model name	*E000437*
Type	*5 wire RES*
Glove	*Any type glove*
Stylus	*No Limitation, can use any stylus*
Interface	*USB*
Light Transmission	*80±5%*
Hardness	*4H*
Glass thickness	*2.4mm*
Linearity	*X≦1.5%, Y≦1.5%*
Active area	*308.11x232.09mm*
Resolution	*4096x4096*
Lifetime	*36 million activations*

Storage

2.5" SATA drive bay x 1

Expansion slots

Mini-PCIe x2

External water/dust resistant I/O (rear side)

USB 1 x M12 8pin for USB 1/2

1 x M12 8pin for USB 3/4

COM 1 x M12 8pin for COM 1/RS-232

1 x M12 8pin for COM 2/RS-232

RS-232: TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND

LAN 1 x M12 8pin for LAN 1

Power 1 x M12 5pin DC power connector

Power

Power DC-In connector x 1

Power Input DC7V~32V

Power Adapter AC 90 ~ 264V / 47 ~ 63 Hz / DC output 12V,

Power ON/Off and reset buttons at rear side

Power consumption 67.5w (full loading) 2.3w (S3)

Mechanical & Environmental

Material construction SUS304 stainless steel enclosure, chassis type

Fanless cooling

Water and dust protection IP66 / NEMA4X

Operation Temperature 0~40℃ (IEC60068-2-2, HDD, air flow cooling)

Storage Temperature -20~60℃

Operation Relative Humidity 10%~90%, non-condensing

Storage Relative Humidity 10%~90%, non-condensing

Dimensions 458x386x64

Net Weight 11.5kg

Gross Weight 15kg

*Mounting VESA (100x100 mmxmm) side mount (M6*2)*

Supported OS

Win 7, Win 7 Pro, Win8.1

Options

1. *Wireless or Wireless and BT kit (2 ant)*
2. *Waterproof COM cable, cable length is 2 meters*

3. *Waterproof USB cable, cable length is 2 meters*
4. *Waterproof LAN cable, cable length is 2 meters*
5. *wall mount / table mount bracket (option)*
6. *SSD*
7. *Intel Core i7-3517U (option) turbo mode disable*
8. *2 external LAN*

Customization (by DRF)

1. *sunlight readable optical bonding*
2. *anti UV and 7H coating*
3. *full flat PCT touch screen IP69K*
4. *1000 nit high brightness LCD*
5. *LCD Auto dimming*
6. *LCD Super dimming (low brightness)*

Packing list

7. *WTP-9A66-19*
8. *DVD-Title for driver and manual*
9. *Power adapter*
10. *Power cord*

Regulatory

FCC, CE (EMC), VCCI class B

Shock/Vibration/Drop

	Shock	*Vibration*	*Drop*
General	*Operating: 20g, 11ms, Terminal Saw tooth pluse Non-operating: (W/T PACKING) 40g, 11ms, Terminal Sawtooth pluse HDD+Dampe r*	*Operating: 5 ~ 500Hz , Acceleration：1.0G Non-operating: (W/T PACKING) 5~500Hz/2.0g HDD+Damper Operating: 5 ~ 500Hz , Acceleration： 3.0G Non-operating: (W/T PACKING) 5~500Hz/5.0g SSD+Damper*	*3 Feet height free drop still survive, (test surface: concrete, with packing) 6 surfaces*

Configurations:

WTP-9A66-19, Core i5-3317U CPU, 2G RAM, 320G HDD, 4 USB, 2 COM, 1 LAN

WTP-9A66-22

System

CPU *FCBGA1023 3rd Generation Intel® Core i7/i5/i3/Celeron® processor (17W max.)*

Chipset *HM65*

Graphic *Intel® integrated HD Graphics 4000*

Audio *None*

LAN *Marvell 88E8071 Giga LAN x 2*

Memory *Two 1333/1600 MHz DDR3 SODIMM socket support dual Channel, non-ECC, up to 16GB*

I/O *EC*

SATA *SATA 3, 600 MB/s transfer rate x 2, 2nd SATA connector for SATA DOM propose.*

Serial port *RS232 x 4*

USB *External* *USB 2.0 x 4*

Internal *USB 2.0x 5*

WDT *Generates system reset; 256 segments, 0, 1, 2…255 sec/min.*

BIOS

Brand: AMI

Flash ROM size: 32MB

Support RTC wakeup /Wake on LAN /Power on after power failure/PnP/ACPI/RTC

PS: com port have to be disabled if PXE enable. It is a limitation

Display

Brand	*AUO*
Model	*M215HTN01.1*
Resolution (pixel)	*1920 x 1080 (Full HD)*
Active Area (mm)	*476.64(H) x 268.11(V)*
Number of Colors	*16.7M*
View Angle (H/V)	*85 / 80*
Brightness (cd/m2)	*250*
Contrast Ratio	*1000:1*
Response Time (ms) (at 25°C)	*5*
Backlight	*LED*
Weight (g)	*1750*
life time<Hrs>	*30000*

Touch Screen

	ELO
Model name	*E000906*
Type	*5 wire RES*

Glove	*Any type glove*
Stylus	*No Limitation, can use any stylus*
Interface	*USB*
Light Transmission	*80±5%*
Hardness	*4H*
Glass thickness	*2.4mm*
Linearity	*X≦1.5%, Y≦1.5%*
Active area	*480 x271.5mm*
Lifetime	*490,000 hours*

Storage

2.5" SATA drive bay x 1

Expansion slots

Mini-PCIe X 2

External water/dust resistant I/O (rear side)

USB 1 x M12 8pin for USB 1/2

1 x M12 8pin for USB 3/4

COM 1 x M12 8pin for COM 1/RS-232

1 x M12 8pin for COM 2/RS-232

RS-232: TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND

LAN 1 x M12 8pin for LAN 1

Power 1 x M12 5pin DC power connector

Power

Power DC-In connector x 1

Power Input DC7V~32V

Power Adapter input 100-277V~ 47 ~ 63 Hz / DC output 24V,

Power ON/Off buttons at rear side

Power consumption 70.4W

Mechanical & Environmental

Material construction SUS304 stainless steel enclosure, chassis type

Fanless cooling

Water and dust protection IP66 / NEMA4X

Operation Temperature 12V DC Input 0~40℃ (IEC60068-2-56, air flow cooling)

32V DC Input 0~30℃ (IEC60068-2-56, air flow cooling)

Storage Temperature -20~60℃

Operation Relative Humidity	*10%~90%, non-condensing*
Storage Relative Humidity	*10%~90%, non-condensing*
Dimensions	*557 x 348.5 x 58.5 mm*
Net Weight	*12KG*
Gross Weight	*14KG*
Mounting	*VESA (100x100 mmxmm) side mount (M6*2)*

Supported OS

Win 7, Win 7 Pro, Win8.1

Options

1. *Wireless or Wireless and BT kit (2 ant)*
2. *Waterproof COM cable, cable length is 2 meters*
3. *Waterproof USB cable, cable length is 2 meters*
4. *Waterproof LAN cable, cable length is 2 meters*
5. *wall mount / table mount bracket (option)*
6. *SSD*
7. *Intel Core i7-3517U (option) turbo mode disable*
8. *2 external LAN*
9. *Second HD*

Customization (by DRF)

1. *sunlight readable optical bonding*
2. *anti UV and 7H coating*
3. *full flat PCT touch screen IP69K*
4. *1000 nit high brightness LCD*
5. *LCD Auto dimming*
6. *LCD Super dimming (low brightness)*

Packing list

1. *WTP-9A66-22*
2. *DVD -Title for driver and manual*
3. *Power adapter*
4. *Power cord*

Regulatory

FCC-B, CE (EMC), VCCI class B

Shock/Vibration/Drop

	Shock	*Vibration*	*Drop*

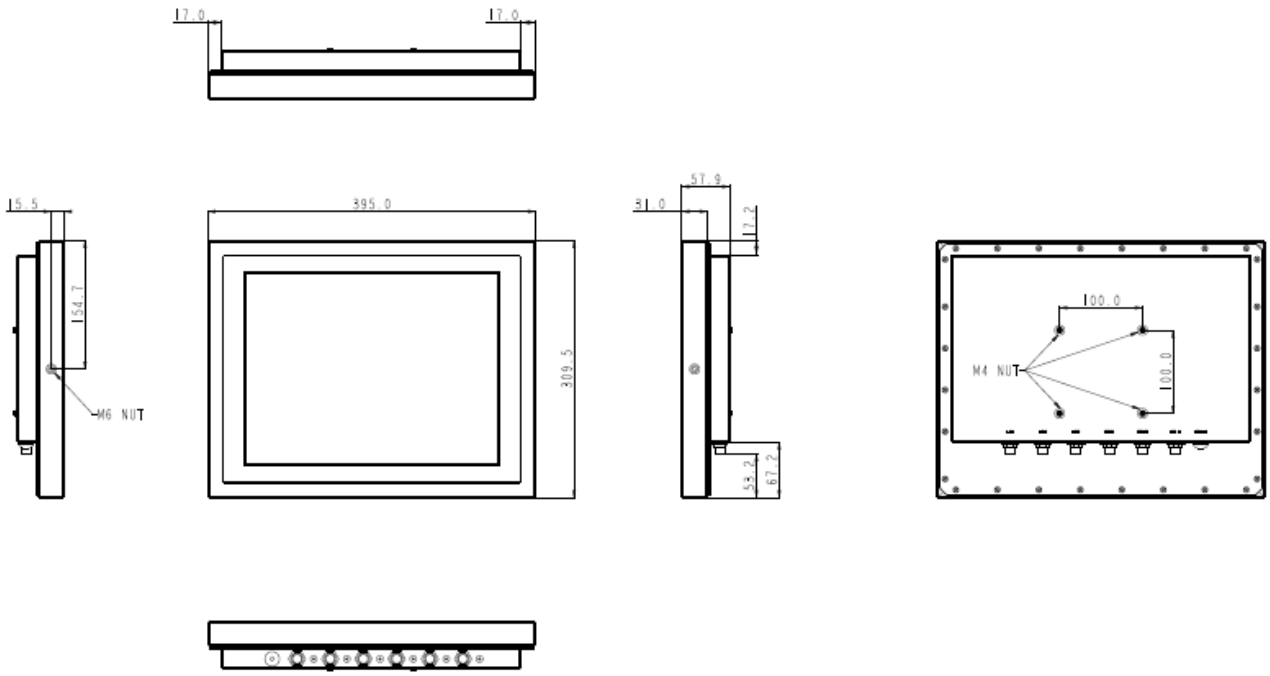
<table>
<tr>
<td>General</td>
<td>Operating:
Pulse shape：Half-sine waveform
Impact acceleration：15g
Pulse duration：11 ms
Number of shocks：18 shocks (3 shock for each ±axis)
Orientation：±X, ±Y and ±Z axes</td>
<td>Operating:
5 ~ 500Hz ,
Acceleration：1.0G
Sweep time：15 minutes
Number of cycle：1 cycle for each axis
Vibration axes：X, Y and Z</td>
<td>According to ISTA Project 2A to determine a drop height in the following chart.
(test surface: concrete, with packing)6 surfaces
<table>
<tr><th>Package-product Weight</th><th>Drop Height</th></tr>
<tr><td>21-40.99 lb (9.53-18.59kg)</td><td>32 in. (0.813 m)</td></tr>
</table>
</td>
</tr>
</table>

Configurations:

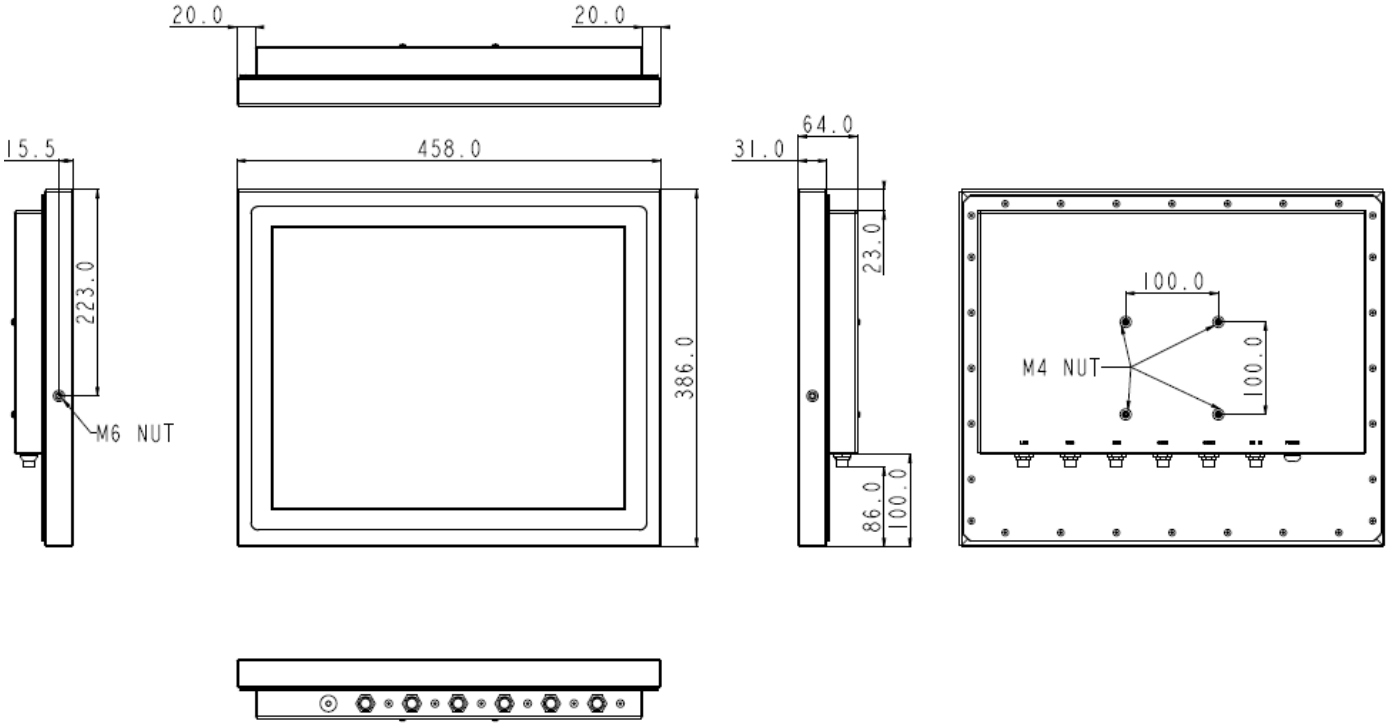
WTP-9A66-22, Core i5-3317U CPU, 2G RAM, 320G HDD, 4 USB, 2 COM, 1 LAN

System View

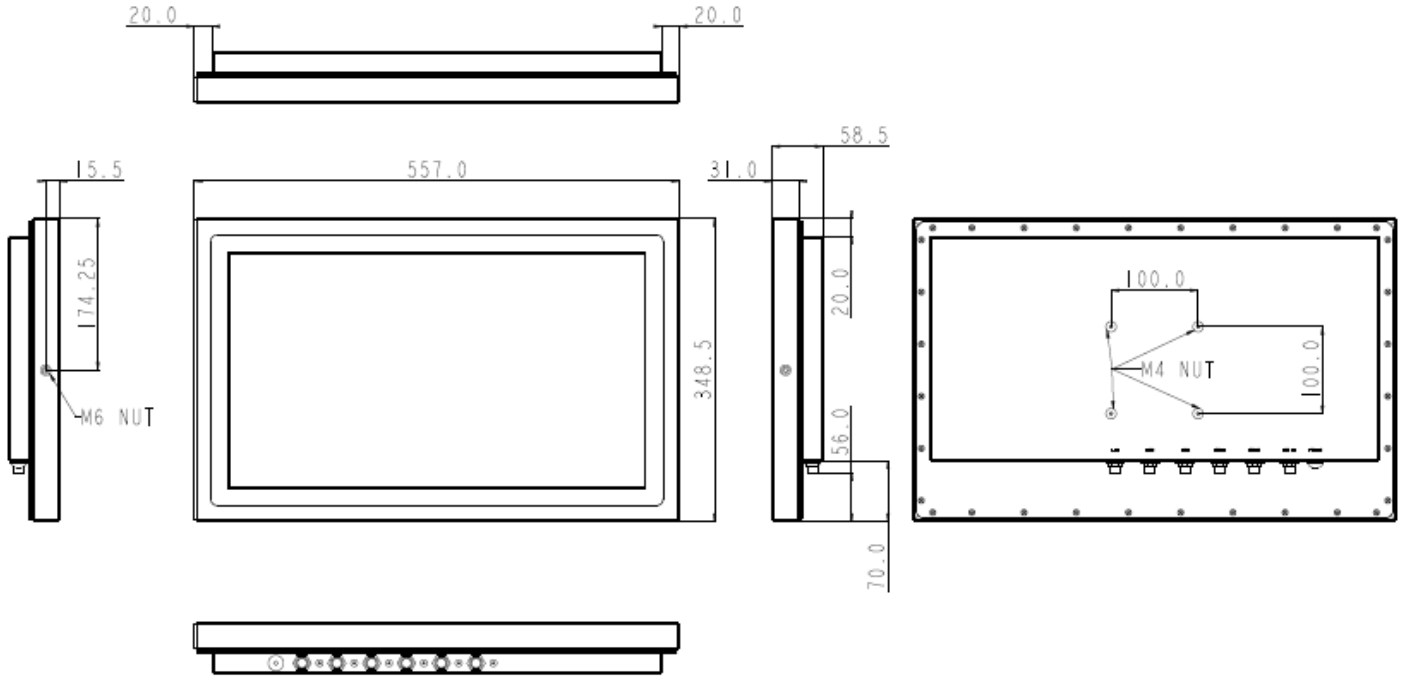
WTP-9A66-15 Outline Drawing



WTP-9A66-19 Outline Drawing



WTP-9A66-22 outline drawing



Setting up the System

The following is a summary of the steps in setting up the system for use.

CAUTION: Make sure that power to the system and each of the devices to be connected is switched OFF before plugging in the connectors.

1. Make any required external connections such as the keyboard, and mouse.
2. Plug the appropriate end of the power cord into the power connector of the system. Then plug the other end of the power cord to an electrical outlet.
3. Press the power switch of the system to turn on the system's power.
4. If necessary, run the BIOS SETUP program to configure the system (see Chapter 3).
5. Install the software drivers if necessary.

Installing System Software

Recent releases of operating systems from major vendors include setup programs, which load automatically and guide you through hard disk preparation and operating system installation. The guidelines below will help you determine the steps necessary to install your operating system on the Panel PC hard drive.

NOTE: Some distributors and system integrators may have already pre-installed system software prior to shipment of your Panel PC.

Installing software requires an installed HDD. Software can be loaded in the WTP-9A66 Panel PC using any of below methods:

Method 1: Use the Ethernet

You can use the Ethernet port to download software from the net to the HDD that has been pre-installed in WTP-9A66 Panel PC

Method 2: Use the COM Port

By connecting another PC to the WTP-9A66 Panel PC with an appropriate cable, you can use transmission software to transmit Operation System Software to the HDD that has been pre-installed in the WTP-9A66 Panel PC.

Method 3: Use a External CD-ROM

In order to boot up system from USB-CD/DVD drive, please connect USB-CD/DVD drive, turn on computer power, keep on pressing “F11” key, go into BIOS quick boot menu, select “USB-CD ROM”, WAIT FOR 20 SECONDS, then press enter, system OS will boot up from USB-CD/DVD drive directly

Then you can use the external CD-ROM to transmit the software to the HDD that has been pre-installed in the WTP-9A66 Panel PC

Installing the Drivers

After installing your system software, you will be able to set up the LAN, VGA, Audio and USB functions. All drivers are stored in a CD disc, which can be found in your accessory pack.
The various drivers and utilities in the disc have their own text files that help users install the drivers and understand their functions.

Follow the sequence below to install the drivers:

Step 1 – Install Intel® INF Driver
Step 2 – Install Intel® VGA Driver
Step 3 – Install Intel® LAN Driver
Step 4 – Install Audio Driver

Step 1 – Install Intel® INF Driver

1. Open fie of **chipset**
2. Click on the **setup.exe**
3. Follow the instructions that the window shows
4. The system will help you install the driver automatically
5. Reboot system

Step 2 –Install Intel® VGA Driver

1. Open fie of **VGA**
2. Select the OS folder your system is
3. Click on the **.exe** file located in the OS folder
4. Follow the instructions that the window shows
5. The system will help you install the driver automatically

6. Reboot system

Step 3 – Install Intel® LAN Driver

1. Open fie of **LAN**
2. Click on the **setup.exe**
3. Follow the instructions that the window shows
4. The system will help you install the driver automatically
5. Reboot system

Step 4 – Install Audio Driver

1. Open fie of **LAN**
2. Click on the **setup.exe**
3. Follow the instructions that the window shows
4. The system will help you install the driver automatically
5. Reboot system

BIOS Setup Information

BIOS Introduction

The AMI BIOS (Basic Input / Output System) installed in your computer system's ROM supports Intel processors. The BIOS provides critical low-level support for a standard device such as disk drives, serial ports and parallel ports. It also adds virus and password protection as well as special support for detailed fine-tuning of the chipset controlling the entire system.

BIOS Setup

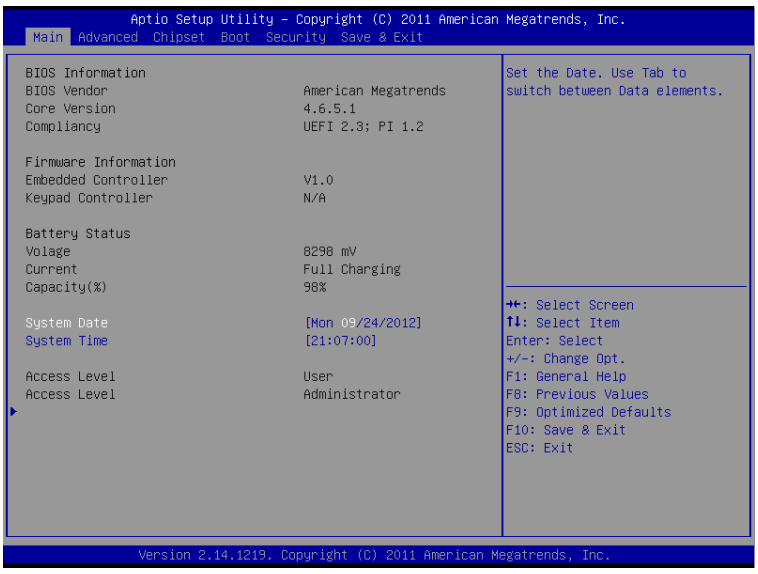
The AMI BIOS provides a Setup utility program for specifying the system configurations and settings. The BIOS ROM of the system stores the Setup utility. When you turn on the computer, the AMI BIOS is immediately activated. Pressing the <Del> key immediately allows you to enter the Setup utility. If you are a little bit late pressing the <Del> key, POST (Power On Self Test) will continue with its test routines, thus preventing you from invoking the Setup. If you still wish to enter Setup, restart the system by pressing the "Reset" button or simultaneously pressing the <Ctrl>, <Alt> and <Delete> keys. You can also restart by turning the system Off and back On again. The following message will appear on the screen:

Press <DEL> to Enter Setup

In general, you press the arrow keys to highlight items, <Enter> to select, the <PgUp> and <PgDn> keys to change entries, <F1> for help and <Esc> to quit.

When you enter the Setup utility, the Main Menu screen will appear on the screen. The Main Menu allows you to select from various setup functions and exit choices.

Main



This section provides information on the BIOS information, Memory information, and Battery information

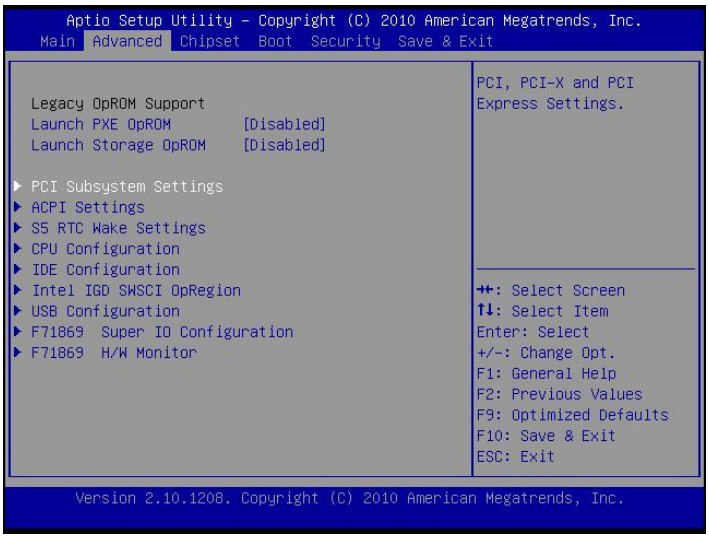
System Date

Set the system date. Use the <Tab> key to switch between data elements.

System Time

Set the system time. Use the <Tab> key to switch between time elements.

Advanced



Launch OpROM Support

Launch PXE OpROM

Enables or disables Boot Option for Legacy Network Devices.

Launch Storage OpROM

Enables or disables Boot Option for Legacy Mass Storage Devices with Option ROM.

PCI Subsystem Settings

PCI ROM Priority

In Case of multiple Option ROMs (Legacy and EFI Compatible), specifies what PCI Option ROM to launch.

PCI Latency Timer

Value to be programmed into PCI Latency Timer Register.

VGA Palette Snoop

Enables or disables VGA Palette Registers Snooping.

PERR# Generation

Enables or Disables PCI Device to Generate PERR#.

SERR# Generation

Enables or Disables PCI Device to Generate SERR#.

Relaxed Ordering

Enables or Disables PCI Express Device Relaxed Ordering.

Extended Tag

If ENABLED allows Device to use 8-bit Tag field as a requester.

No Snoop

Enables or Disables PCI Express Device No Snoop option.

Maximum Payload

Set Maximum Payload of PCI Express Device or allow System BIOS to select the value

Maximum Read Request

Set Maximum Read Request Size of PCI Express Device or allow System BIOS to select the value.

ASPM Support

Set the ASPM Level: Force L0 – Force all links to L0 State : AUTO – BIOS auto configure : DISABLE – Disables ASPM.

Extended Synch

If ENABLED allows generation of Extended Synchronization patterns.

ACPI Settings

Enables ACPI Auto Conf

Enables or Disables BIOS ACPI Auto Configuration.

Enable Hibernation

Enables or Disables System ability to Hibernate (OS/S4 Sleep State). This option may be not effective with some OS.

ACPI Sleep State

Select the highest ACPI sleep state the system will enter, when the SUSPEND button is pressed.

S5 RTC Wake Settings

Wake System with Fixed Time

Enables or disables system wake on alarm event. When enabled, the system will wake on the time specified.

Wake system with Dynamic Time

Enables or disables system wake on alarm event. When enabled, the system will wake on the current time+Increase minute(s).

CPU Configuration

Hyper-Threading

Enabled for Windows XP and Linux (OS optimized for Hyper-Threading Technology) and Disabled for other OS (OS optimized for Hyper-Threading Technology)

Core-Multi Processing

Enable or Disable Core-Multi Processing mode.

Execute Disable Bit

XD can prevent certain classes of malicious buffer overflow attacks when combined with a supporting OS (Windows Server 2003 SP1, Windows XP SP2, SuSE Linux 9.2, RedHat Enterprise 3 Update 3.)

Limit CPUID Maximum

Disabled for Windows XP.

IDE Configuration

ATA or IDE Configuration

Select ATA or IDE configuration.

Configure SATA AS

Select a configuration for SATA controller.

HDD Acoustic Power Ma

Option to enable or disable HDD Acoustic Power Management.

DiPM

Option to enable or disable DiPM

Intel IGD SWSCI OpRegion

DVMT Mode Select

Selects DVMT Mode used by Internal Graphics Device.

DVMT/FIXED Memory

Selects DVMT/FIXED Mode Memory size used by Internal Graphics Device.

IGD – Boot Type

Select the Video Device which will be activated during POST. This has no effect if external graphics present.

LCD Panel Type

Select LCD panel used by Internal Graphics Device by selecting the appropriate setup item.

Panel Scaling

Select the LCD panel scaling option used by the Internal Graphics Device.

GMCH BLC Control

Back Light Control Setting

BIA Control

Spread Spectrum clock

>>Hardware: Spread is controlled by chip;

>>Software: Spread is controlled by BIOS.

TV1 Standard

TV2 Standard

Active LFP

Select the Active LFP Configuration.

No LVDS:VBIOS does not enable LVDS.

INT-LVDS:VBIOS enables LVDS driver by Integrated encoder.

SDV0 LVDS:VBIOS enables LVDS driver by SDV0.

USB Configuration

Legacy USB Support

Allows USB devices to be used in MS-DOS.

EHCI Hand-off

This is a workaround for 0Ses without EHCI hand-off support. The EHCI ownership change should be claimed by EHCI driver.

USB transfer time-out

The time-out value for Control, Bulk, and Interrupt transfers.

Device reset time-out

USB mass storage device Start Unit command time-out.

Device power-up delay

Maximum time the device will take before it properly reports itself to the HOST Controller.

'Auto' uses default value: for a Root port it is 100 ms, for a Hub port the delay is taken from Hub descriptor.

F71869 Super IO Configuration

Serial Port 0 Configuration

Set Parameters of Serial Port 0 (COM A).

Serial Port 1 Configuration

Set Parameters of Serial Port 1 (COM B).

F71869 H/W Monitor

Monitor hardware status

Second Super IO Configuration

Serial Port 1 Configuration

Set Parameters of Serial Port 1 (COM C).

Serial Port 2 Configuration

Set Parameters of Serial Port 2 (COM D).

Serial Port 3 Configuration

Set Parameters of Serial Port 3 (COM E).

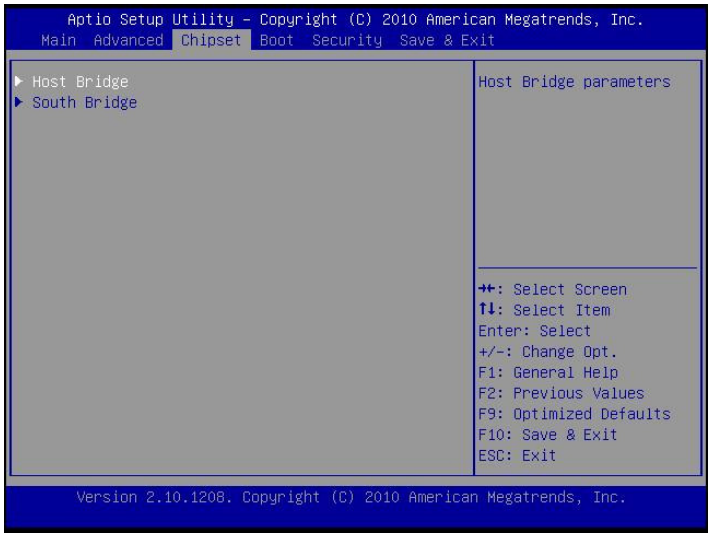
Serial Port 4 Configuration

Set Parameters of Serial Port 4 (COM F).

Serial Port Console Redirection

Serial Port Console Redirection.

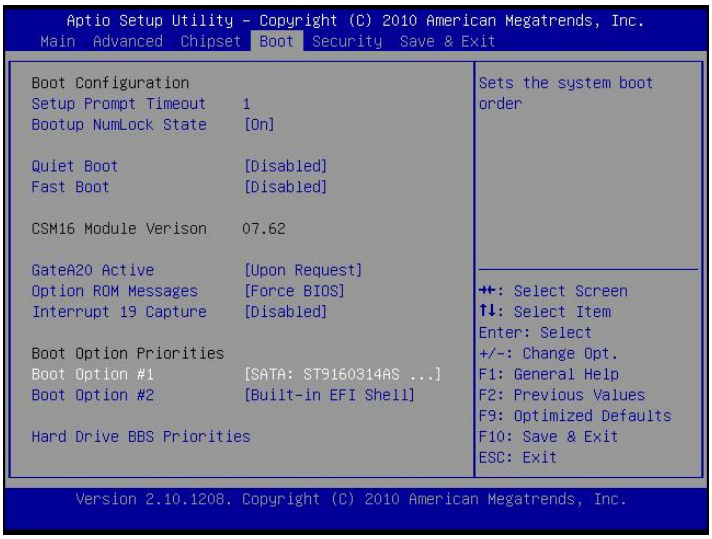
Chipset



Host Bridge/South Bridge

This screen provides information on Host Bridge/South Bridge parameters.

Boot


Aptio Setup Utility – Copyright (C) 2010 American Megatrends, Inc.
Main Advanced Chipset Boot Security Save & Exit
Boot Configuration
Setup Prompt Timeout 1
Bootup NumLock State [On]
Quiet Boot [Disabled]
Fast Boot [Disabled]
CSM16 Module Verison 07.62
GateA20 Active [Upon Request]
Option ROM Messages [Force BIOS]
Interrupt 19 Capture [Disabled]
Boot Option Priorities
Boot Option #1 [SATA: ST9160314AS ...]
Boot Option #2 [Built-in EFI Shell]
Hard Drive BBS Priorities
Sets the system boot order
→←: Select Screen
↑↓: Select Item
Enter: Select
+/-: Change Opt.
F1: General Help
F2: Previous Values
F9: Optimized Defaults
F10: Save & Exit
ESC: Exit
Version 2.10.1208. Copyright (C) 2010 American Megatrends, Inc.

Setup Prompt Timeout

Number of seconds to wait for setup activation key. 65535(0xFFFF) means indefinite waiting.

Bootup Numlock State

Selects the keyboard NumLock state.

Quiet Boot

Allows you to determine whether to display the AMI Logo at system startup. **Disabled** displays normal POST message.

Fast Boot

Enables or disables the quick boot function to speed up the system boot-up process to shorten the waiting time for entering the operating system and to deliver greater efficiency for daily use.

GateA20 Active

This option is useful when any RT code is executed above 1MB.

Upon Request GA20 can be disabled using BIOS services. (Default)

Always Do not allow disabling GA20.

Option ROM Messages

Sets display made for option ROM.

Interrupt 19 Capture

Enables or disables Option ROMs to Trap Int 19.

Boot Option Priorities

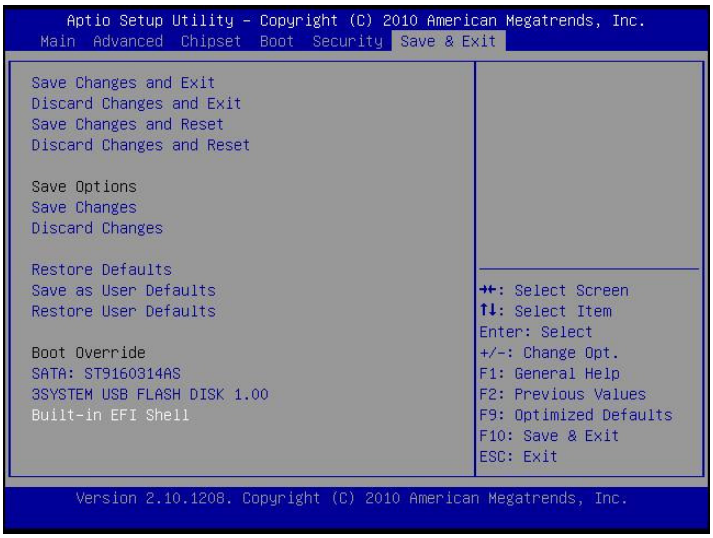
Specifies the sequence of loading the operating system from the installed hard drives.

Security

Aptio Setup Utility – Copyright (C) 2010 American Megatrends, Inc.
Main Advanced Chipset Boot Security Save & Exit
Password Description
If ONLY the Administrator's password is set, then this only limits access to Setup and is only asked for when entering Setup.
If ONLY the User's password is set, then this is a power on password and must be entered to boot or enter Setup. In Setup the User will have Administrator rights.
The password must be 3 to 20 characters long.
Administrator Password
User Password
HDD Security Configur
HDD 0:ST9160314AS
Set Setup Administrator Password
→←: Select Screen
↑↓: Select Item
Enter: Select
+/-: Change Opt.
F1: General Help
F2: Previous Values
F9: Optimized Defaults
F10: Save & Exit
ESC: Exit
Version 2.10.1208. Copyright (C) 2010 American Megatrends, Inc.

Enables or disables the security chip. It is recommended that you use this function with the Administrator/User password.

Save & Exit



Save Changes and Exit

Exit system setup after saving the changes.

Discard Changes and Exit

Exit system setup without saving any changes.

Save Changes and Reset

Reset the system after saving the changes.

Discard Changes and Reset

Reset system setup without saving the changes.

Save Changes

Save the changes done so far to any of setup options.

Discard Changes

Discard the changes done so far to any of setup options.

Restore Defaults

Restore/load default values for all the setup options.

Save as User Defaults

Save the changes done so far as User Defaults.

Restore User Defaults

Restore the User Defaults to all the setup options.

EFIGUI_FLASH

Press <Enter> to execute the simple EFI GUI Flash Program.

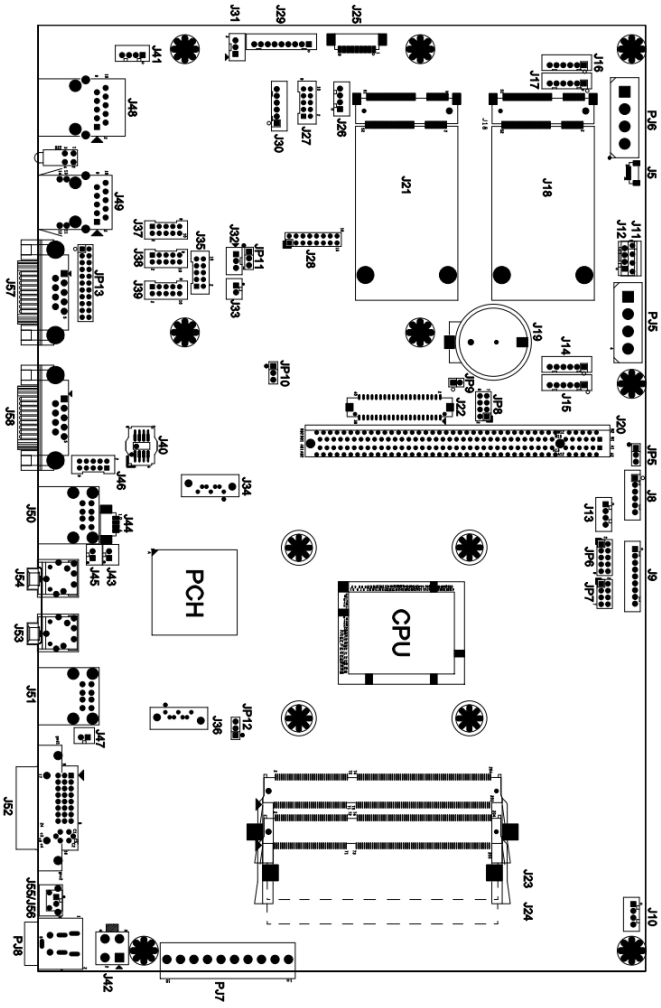
Appendix

A. Jumper settings and Connectors

This appendix gives the definitions and shows the positions of jumpers, headers and connectors. All of the configuration jumpers on WTP-9A66 are in the proper position.

Note: Some of jumpers or connectors will be removed base on system configuration.

Jumper and Connector Definition Block



JP5 –Backlight Adjust

Description	Jumper Setting
analog Inverter	1-2
PWM Inverter	***2-3(default)***

JP6 – Touch Panel Wire Selection

Description	Jumper Setting
4 wire	1-2, 3-4, 5-6, 7-8, 9-10
5 wire	***3-4, 5-6, 7-8, 9-10 (default)***
8 wire	1-2

JP7 – Touch Panel Type Selection

Description	Jumper Setting
3M type	***1-2, 3-4 (default)***
ELO type	5-6,7-8

JP8– Panel Power Selection

Description	Jumper Setting
+5VS (for 17"/***19"***/21.5")	1-2,3-4
+3.3VS (for 10"/12"/***15"***)	5-6,7-8

JP10 – CMOS Clear

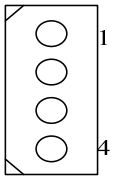
Description	Jumper Setting
Normal Open	***1-2 (default)***
CMOS Clear	2-3

JP12 – SATA or SATA DOM Selection

Description	Jumper Setting
SATA DOM	1-2 ---power +5V
SATA	***2-3(default)--- GND***

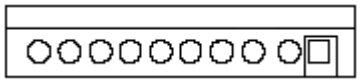
Connector Definition

PJ5, PJ6 – HDD Power Connector



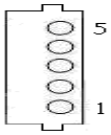
Pin #	Signal Description
1	+12V
2	Ground
3	Ground
4	+5V

PJ7 – DC Power Input



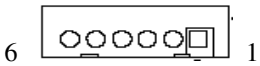
Pin #	Signal Description
1	DC IN
2	DC IN
3	DC IN
4	Reserved
5	Reserved
6	Reserved
7	Reserved
8	Ground
9	Ground
10	Ground

J5 – Internal USB +3.3V Interface



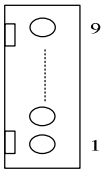
Pin #	Signal Description
1	+3.3VS
2	Data -
3	Data +
4	Ground
5	Ground

J8 – LCD Inverter Interface



Pin #	Signal Description
1	+12V
2	+12V
3	Backlight Adjust
4	Backlight Enable
5	Ground
6	Ground

J9 –Resistor Touch Panel Interface



Pin #	Signal Description		
	8-wire	4-wire	5-wire
1	UL(X+)	UL(X+)	UL(X+)
2	UR(Y+)	UR(Y+)	UR(Y+)
3	N/A	N/A	PRCBE
4	LR(X-)	LR(X-)	LR(X-)
5	LL(Y-)	LL(Y-)	LL(Y-)
6	X+_DRIVE	N/A	N/A
7	Y+_DRIVE	N/A	N/A
8	X-_DRIVE	N/A	N/A
9	Y-_DRIVE	N/A	N/A

J10,J11/J12 –PWM CPU FAN, SYSTEM FAN

Pin #	Signal Description		
	J10(SYSTEM)	J11(CPU) 2.54mm	J12(CPU) 2.0mm
1	AUX PWM	CPU PWM	SYS PWM
2	AUX RPM	CPU RPM	SYS RPM
3	VAUXFAN	VCPUXFAN	VSYSXFAN
4	GND	GND	GND

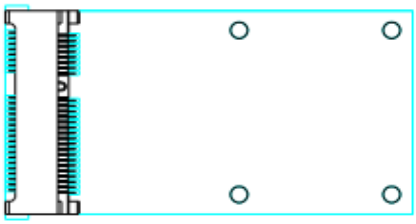
J13 –F/W IC-EETI control

Pin #	Signal Description
1	+3.3V_TP
2	C2CK
3	C2D
4	Ground

J14, J15, J16, J17 – Internal USB 5V Interface

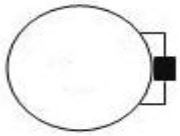
Pin #	Signal Description
1	+5VSB
2	+5VSB
3	Data -
4	Data +
5	Ground
6	Ground

J18, J21 – mini PCI Express Socket



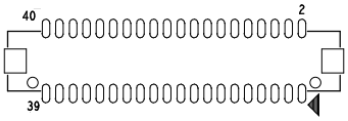
Pin #	Signal Description	Pin #	Signal Description
1	WAKE#	**2**	+3.3VSB
3	Reserved	**4**	GND
5	Reserved	**6**	+1.5VS
7	CLKREQ#	**8**	Reserved
9	GND	**10**	Reserved
11	REFCLK-	**12**	Reserved
13	REFCLK+	**14**	Reserved
15	GND	**16**	Reserved
17	Reserved	**18**	GND
19	Reserved	**20**	Reserved
21	GND	**22**	PERST#
23	PERn0	**24**	+3.3VSB
25	PERp0	**26**	GND
27	GND	**28**	+1.5VS
29	GND	**30**	SMB_CLK
31	PETn0	**32**	SMB_DATA
33	PETp0	**34**	GND
35	GND	**36**	USB_D-
37	GND	**38**	USB_D+
39	+3.3VSB	**40**	GND
41	+3.3VSB	**42**	Reserved
43	GND	**44**	Reserved
45	CL_CLK	**46**	Reserved
47	CL_ DATA	**48**	+1.5VS
49	Controller Link RST#	**50**	GND
51	Reserved	**52**	+3.3VSB

J19 – Battery Socket



Pin #	Signal Description
1	RTC +3.3V
2	GND

J22 – LVDS Interface



Pin #	Signal Description	Pin #	Signal Description
1	+LCD (+5V/ +3.3V)	**2**	+LCD (+5V/ +3.3V)
3	+LCD (+5V/ +3.3V)	**4**	+LCD (+5V/ +3.3V)
5	Ground	**6**	Ground
7	Ground	**8**	Ground
9	A_RxIn0-	**10**	B_RxIn0-
11	A_RxIn0+	**12**	B_RxIn0+
13	Ground	**14**	Ground
15	A_RxIn1-	**16**	B_RxIn1-
17	A_RxIn1+	**18**	B_RxIn1+
19	Ground	**20**	Ground
21	A_RxIn2-	**22**	B_RxIn2-
23	A_RxIn2+	**24**	B_RxIn2+
25	Ground	**26**	Ground
27	A_CKIN-	**28**	B_CKIN-
29	A_CKIN+	**30**	B_CKIN+
31	Ground	**32**	Ground
33	A_RxIn3-	**34**	B_RxIn3-
35	A_RxIn3+	**36**	B_RxIn3+
37	Ground	**38**	Ground
39	Ground	**40**	Ground

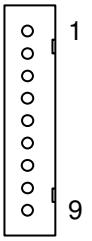
J23,J24 – DDR3 SO-DIMM Interface

J23→ H9.2 Near CPU
J24→ H5.2 Near External

Pin	Symbol	Pin	Symbol	Pin	Symbol	Pin	Symbol	Pin	Symbol	Pin	Symbol
1	VREFDQ	**69**	DQ27	**137**	DQS4	**2**	VSS	**70**	DQ31	**138**	VSS
3	VSS	**71**	VSS	**139**	VSS	**4**	DQ4	**72**	VSS	**140**	DQ38
5	DQ0	**73**	CKE0	**141**	DQ34	**6**	DQ5	**74**	NC	**142**	DQ39
7	DQ1	**75**	VDD	**143**	DQ35	**8**	VSS	**76**	VDD	**144**	VSS
9	VSS	**77**	NC	**145**	VSS	**10**	DQS0#	**78**	NC	**146**	DQ44

11	DM0	**79**	BA2	**147**	DQ40	**12**	DQS0	**80**	NF/A14	**148**	DQ45
13	VSS	**81**	VDD	**149**	DQ41	**14**	VSS	**82**	VDD	**150**	VSS
15	DQ2	**83**	A12	**151**	VSS	**16**	DQ6	**84**	A11	**152**	DQS5#
17	DQ3	**85**	A9	**153**	DM5	**18**	DQ7	**86**	A7	**154**	DQS5
19	VSS	**87**	VDD	**155**	VSS	**20**	VSS	**88**	VDD	**156**	VSS
21	DQ8	**89**	A8	**157**	DQ42	**22**	DQ12	**90**	A6	**158**	DQ46
23	DQ9	**91**	A5	**159**	DQ43	**24**	DQ13	**92**	A4	**160**	DQ47
25	VSS	**93**	VDD	**161**	VSS	**26**	VSS	**94**	VDD	**162**	VSS
27	DQS1#	**95**	A3	**163**	DQ48	**28**	DM1	**96**	A2	**164**	DQ52
29	DQS1	**97**	A1	**165**	DQ49	**30**	RESET#	**98**	A0	**166**	DQ53
31	VSS	**99**	VDD	**167**	VSS	**32**	VSS	**100**	VDD	**168**	VSS
33	DQ10	**101**	CK0	**169**	DQS6#	**34**	DQ14	**102**	CK1	**170**	DM6
35	DQ11	**103**	CK0#	**171**	DQS6	**36**	DQ15	**104**	CK1#	**172**	VSS
37	VSS	**105**	VDD	**173**	VSS	**38**	VSS	**106**	VDD	**174**	DQ54
39	DQ16	**107**	A10	**175**	DQ50	**40**	DQ20	**108**	BA1	**176**	DQ55
41	DQ17	**109**	BA0	**177**	DQ51	**42**	DQ21	**110**	RAS#	**178**	VSS
43	VSS	**111**	VDD	**179**	VSS	**44**	VSS	**112**	VDD	**180**	DQ60
45	DQS2#	**113**	WE#	**181**	DQ56	**46**	DM2	**114**	S0#	**182**	DQ61
47	DQS2	**115**	CAS#	**183**	DQ57	**48**	VSS	**116**	ODT0	**184**	VSS
49	VSS	**117**	VDD	**185**	VSS	**50**	DQ22	**118**	VDD	**186**	DQS7#
51	DQ18	**119**	A13	**187**	DM7	**52**	DQ23	**120**	NC	**188**	DQS7
53	DQ19	**121**	NC	**189**	VSS	**54**	VSS	**122**	NC	**190**	VSS
55	VSS	**123**	VDD	**191**	DQ58	**56**	DQ28	**124**	VDD	**192**	DQ62
57	DQ24	**125**	NC	**193**	DQ59	**58**	DQ29	**126**	VREFCA	**194**	DQ63
59	DQ25	**127**	VSS	**195**	VSS	**60**	VSS	**128**	VSS	**196**	VSS
61	VSS	**129**	DQ32	**197**	SA0	**62**	DQ3#	**130**	DQ36	**198**	EVENT#
63	DM3	**131**	DQ33	**199**	VDDSPD	**64**	DQ3	**132**	DQ37	**200**	SDA
65	VSS	**133**	VSS	**201**	SA1	**66**	VSS	**134**	VSS	**202**	SCL
67	DQ26	**135**	DQS4#	**203**	VTT	**68**	DQ30	**136**	DM4	**204**	VTT

J25 – CAP Front Bezel Button Connector

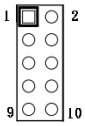


Pin #	Signal Description
1	+3.3V
2	+3.3V
3	KP_SCL
4	KP_SDA
5	HEATER_LED#
6	KP_INT#
7	SATA_LED#
8	Ground
9	Ground

J26 – SDP (EC Simple Debug Port)

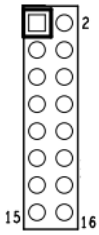
Pin #	Signal Description
1	+5V
2	P80_DAT
3	P80_CLK
4	Ground

J27 – EC JTAG



Pin #	Signal Description	Pin #	Signal Description
1	EC_TRST#	2	+3.3V
3	EC_TMS	4	EC_RDY#
5	EC_TDI	6	GND
7	EC_TCK	8	GND
9	EC_TDO	10	GND

J28 –TPM / ID-394



Pin #	Signal Description	Pin #	Signal Description
1	LPC AD0	2	PCI reset
3	LPC AD1	4	SERIRQ
5	LPC AD2	6	+3.3V
7	LPC AD3	8	+5V
9	LPC Frame	10	PCI CLKRUN
11	Debug CLK	12	SMB CLK
13	GND	14	SMB DATA
15	SUS_STAT#	16	+3.3V

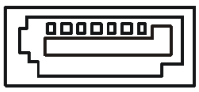
J29 – Front Bezel Button Connector

Pin #	Signal Description
1	Power Button
2	+3.3V
3	Sound Volume Up
4	Sound Volume Down
5	Ground
6	LCD BackLight Up
7	LCD BackLight Down
8	Touch Screen Forbid
9	LCD BackLight ON/OFF

J31 – Light Sensor Connector (For Outdoor)

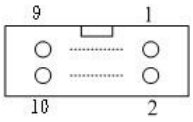
Pin #	Signal Description
1	Light Sensor
2	NC
3	+3.3V

J34, J36 – Standard SATA Interface



Pin #	Signal Description
1	Ground
2	Tx+
3	Tx-
4	Ground
5	Rx-
6	Rx+
7	Ground

J46, J37, J38, J39– COM1, 2, 3 & 4 Serial Port



Pin #	Signal Description	Pin #	Signal Description
1	232_DCD	2	232_DSR
3	232_SIN	4	232_RTS
5	232_SOUT	6	232_CTS
7	232_DTR	8	232_RI
9	GND	10	+5VS

J40 – BIOS SOCKET

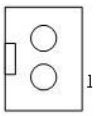
Pin1

Pin #	Signal Description	Pin #	Signal Description
1	CS#	5	VDD
2	SO	6	HOLD#
3	WP#	7	SCK
4	VSS	8	SI

J41 – POWER & HDD LED (For WMP-176/196)

Pin #	Signal Description
1	SATA LED
2	+3.3V
3	+3.3V
4	Power LED

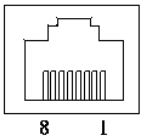
J47 – Power Switch connect



Pin #	Signal Description
1	Power ON

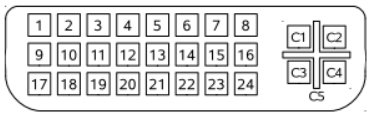
2	GND

J48, J49 – Ethernet Port



Pin #	Signal Description
1	Data0+
2	Data0-
3	Data1+
4	Data2+
5	Data2-
6	Data1-
7	Data3+
8	Data3-

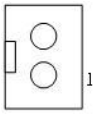
J52 – DVI-I Interface



Pin #	Signal Description	Pin #	Signal Description
1	TMDS Data2-	2	TMDS Data2+
3	TMDS Data2 shield	4	NC
5	NC	6	DDC Clock
7	DDC Data	8	Analog VSYNC
9	TMDS Data1-	10	TMDS Data1+
11	TMDS Data1 Shield	12	NC
13	NC	14	+5V
15	GND	16	Hot Plug Detect
17	TMDS Data0-	18	TMDS Data0+
19	TMDS Data0 Shield	20	NC
21	NC	22	TMDS Clock Shield

23	TMDS Clock+	24	TMDS Clock-
C1	Analog Red	C2	Analog Green
C3	Analog Blue	C4	Analog HSYNC
C5	GND	C6	GND

J55 – Reset connector



Pin #	Signal Description
1	SYS_RESET#
2	GND